

I CLAIM:

1. An electric generator adapted for use with a vehicle wheel, comprising:

5 a housing adapted to be mounted on the vehicle wheel and having a base wall and a surrounding wall that extends from a periphery of said base wall and that cooperates with said base wall to confine a receiving space, said surrounding wall being formed with inlet and outlet vent holes that are in spatial communication with said
10 receiving space;

an air impeller disposed in said receiving space and having a spindle that extends in an axial direction transverse to said base wall and that is coupled rotatably to said base wall, said air impeller being
15 formed with a plurality of radial impeller blades such that flow of air into said receiving space through said inlet vent hole and out of said receiving space through said outlet vent hole when the vehicle wheel rotates results in rotation of said air impeller in said
20 receiving space;

a stator coil mounted securely in said receiving space; and

a magnet ring disposed in said receiving space around said stator coil and coupled co-rotatably to said air
25 impeller such that rotation of said magnet ring with said air impeller results in an induced electrical current in said stator coil.

2. The electric generator as claimed in Claim 1, wherein said base wall is formed with a spindle sleeve that extends into said receiving space, said spindle being mounted rotatably in said spindle sleeve, said stator coil being secured on said spindle sleeve.

3. The electric generator as claimed in Claim 1, further comprising a circuit board mounted on said housing, and a charging and regulating unit mounted on said circuit board and coupled electrically to said stator coil.

4. The electric generator as claimed in Claim 3, further comprising a light emitting module mounted on said circuit board and coupled to and driven by said charging and regulating unit.

5. The electric generator as claimed in Claim 4, further comprising a light sensor coupled to said charging and regulating unit and said light emitting module for selectively enabling and disabling operation of said light emitting module in accordance with ambient light conditions.

6. The electric generator as claimed in Claim 1, wherein said housing is formed with a plurality of mounting lugs, each of which is formed with a lug hole that permits extension of a corresponding fastener therethrough so as to permit fastening of said housing on the vehicle wheel.

7. The electric generator as claimed in Claim 6, the vehicle wheel being formed with a plurality of fastener

holes, said electric generator further comprising a plurality of anchor members, each of which is adapted to be disposed in and fastened to the vehicle wheel at a respective one of the fastener holes, each of said
5 anchor members having a rim flange adapted to be seated against the vehicle wheel outwardly of the respective one of the fastener holes, each of said mounting lugs being disposed to lie against and being fastened by the corresponding fastener to said rim flange of a respective
10 one of said anchor members.

8. The electric generator as claimed in Claim 7, wherein each of said anchor members includes an outer positioning tube formed with said rim flange, and an inner anchoring seat disposed in said positioning tube and adapted to
15 be fastened to the vehicle wheel.

9. The electric generator as claimed in Claim 1, wherein said inlet vent hole tapers in a direction toward said receiving space.